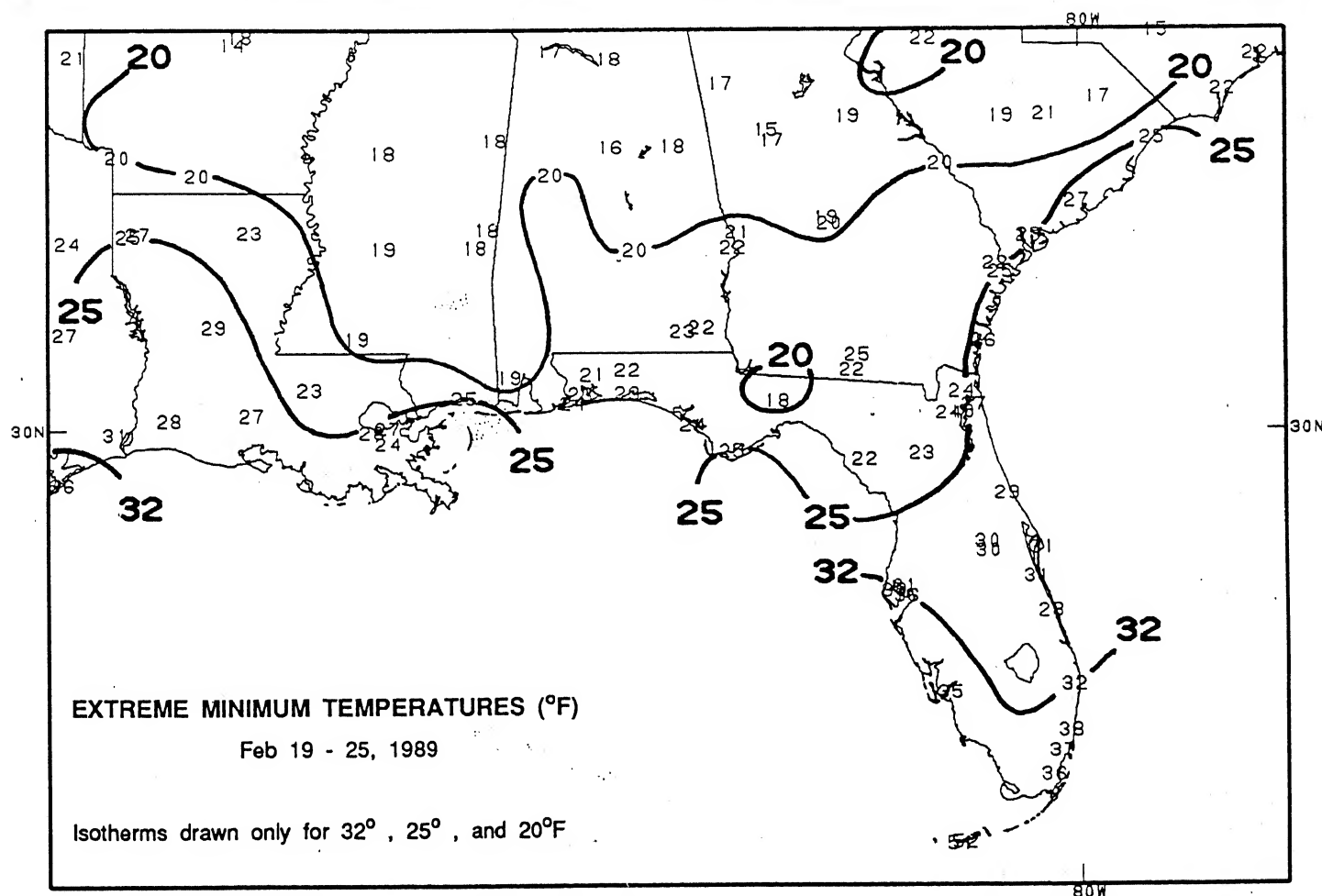


WEEKLY CLIMATE BULLETIN

No. 89/08

Washington, DC

February 25, 1989



UNSEASONABLY COLD AIR PLUNGED INTO THE DEEP SOUTH AS DOZENS OF LOCATIONS TIED OR SET NEW DAILY MINIMUM TEMPERATURE RECORDS DURING THE WEEK.

UNITED STATES DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
NATIONAL WEATHER SERVICE - NATIONAL METEOROLOGICAL CENTER

WEEKLY CLIMATE BULLETIN

Editor:	David Miskus
Associate Editor:	Paul Sabol
Contributors:	Jeffrey D. Logan Keith W. Johnson Vernon L. Patterson
Graphics:	Robert H. Churchill Richard J. Tinker Michael C. Falciani

This Bulletin is issued weekly by the Climate Analysis Center and is designed to indicate, in a brief, concise format, current surface climatic conditions in the United States and around the world. The Bulletin contains:

- Highlights of major global climatic events and anomalies.
- U.S. climatic conditions for the previous week.
- U.S. apparent temperatures (summer) or wind chill (winter).
- Global two-week temperature anomalies.
- Global four-week precipitation anomalies.
- Global monthly temperature and precipitation anomalies.
- Global three-month precipitation anomalies (once a month).
- Global twelve-month precipitation anomalies (every 3 months).
- Global temperature anomalies for winter and summer seasons.
- Special climate summaries, explanations, etc. (as appropriate).

Most analyses contained in this Bulletin are based on preliminary, unchecked data received at the Center via the Global Telecommunication System. Similar analyses based on final, checked data are likely to differ to some extent from those presented here.

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Climate Analysis Center, W/NMC53
Attention: Weekly Climate Bulletin
NOAA, National Weather Service
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GLOBAL CLIMATE HIGHLIGHTS

MAJOR CLIMATIC EVENTS AND ANOMALIES AS OF FEBRUARY 25, 1989

[Approximate duration of anomalies is in brackets]

1. Northwestern United States and Southwestern Canada:

DRYNESS RETURNS.

Although up to 91 mm (3.60 inches) of precipitation was reported in the area, relatively dry conditions continued [7 weeks].

2. Florida:

AREA STILL DRY.

Precipitation totals remained below 15.8 mm (0.62 inches) in most of Florida as dry weather persisted [7 weeks].

3. Eastern United States:

COLD AIR INVADES SOUTH; SNOW ON EAST COAST.

Very cold weather, with temperatures as much as 6.1°C (11.0°F) below normal invaded the southeastern United States. More than 20 tornadoes struck parts of North Carolina and Virginia on Tuesday and a winter storm dumped 20 cm (8 inches) to 61 cm (24 inches) of snow along the East Coast from the Carolinas to New England at week's end [Episodic Events].

4. Uruguay and Northern Argentina:

AREA REMAINS DRY AND WARM.

Less than 15.0 mm (0.59 inches) of precipitation fell as dryness persisted [35 weeks]. Unusually warm conditions continued with temperatures up to 4.7°C (8.5°F) above normal [13 weeks].

5. Europe and the Middle East:

DRY WEATHER PERSISTS; MILD IN NORTH.

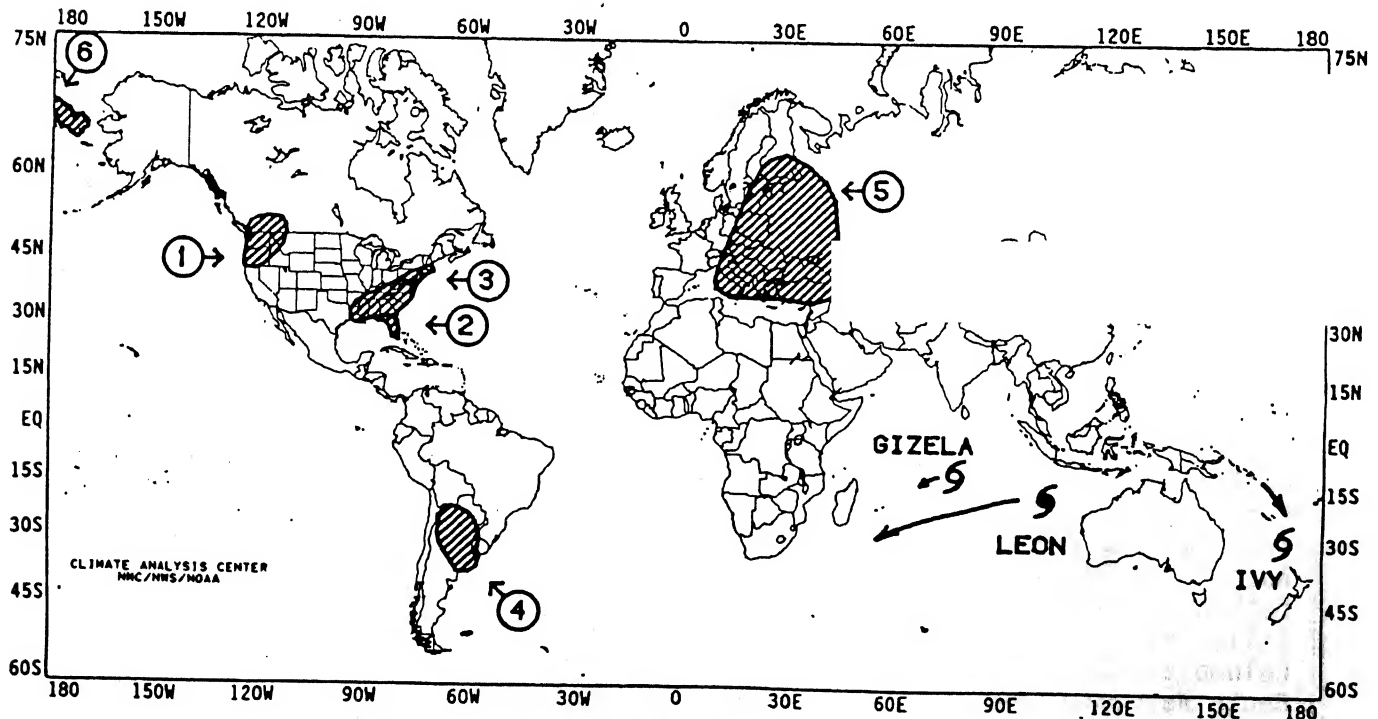
Precipitation totals were generally below 13.7 mm (0.54 inches) as dryness remained [12 weeks]. Unusually mild weather prevailed over most of the Continent with temperatures up to 9.2°C (16.6°F) above normal [7 weeks].

6. Siberia:

MILD CONDITIONS PREVAIL.

The mild weather regime, with temperatures reaching 14.5°C (26.1°F) above normal, persisted across most of Siberia [20 weeks].

(NOTE: Text precipitation amounts and temperature departures are this week's values).



Approximate locations of the major anomalies and events described above are shown on this map. See other maps in this Bulletin for current two week temperature anomalies, four week precipitation anomalies, longer term anomalies, and other details.

UNITED STATES WEEKLY CLIMATE HIGHLIGHTS

FOR THE WEEK OF FEBRUARY 19 THROUGH FEBRUARY 25, 1989.

Winter returned to the East as very cold air penetrated all the way to central Florida and a major winter storm moved up the East Coast. Early season tornadoes hit some of the southeastern states. Early in the week a storm system brought abundant moisture to the Pacific Northwest; however, relatively dry conditions prevailed for the rest of the week. Severe weather occurred in the Southeast on Monday as severe thunderstorms and a few tornadoes moved across Louisiana, Mississippi, and Alabama. The following day more than twenty (20) tornadoes touched down in North Carolina and southern Virginia and heavy rains fell in the Ohio River Valley. Cold air entered the Northern Plains and invaded the southern and eastern United States, where many cold temperature records were tied or broken during the last half of the week. A major snowstorm developed off the Carolina coast and brought heavy snow, up to seven inches, to Georgia on Thursday. By Friday the storm gained strength and dumped up to two feet of snow around Cape May, NJ, and over a foot elsewhere along the Middle Atlantic coast; however, sharply lower accumulations occurred inland. The storm left as much as eight inches of snow on the coast of New England on Saturday.

Very heavy precipitation fell across much of the southeastern and eastern United States. According to River Forecast Centers as much as six inches of rain were reported by stations in Louisiana and reports of

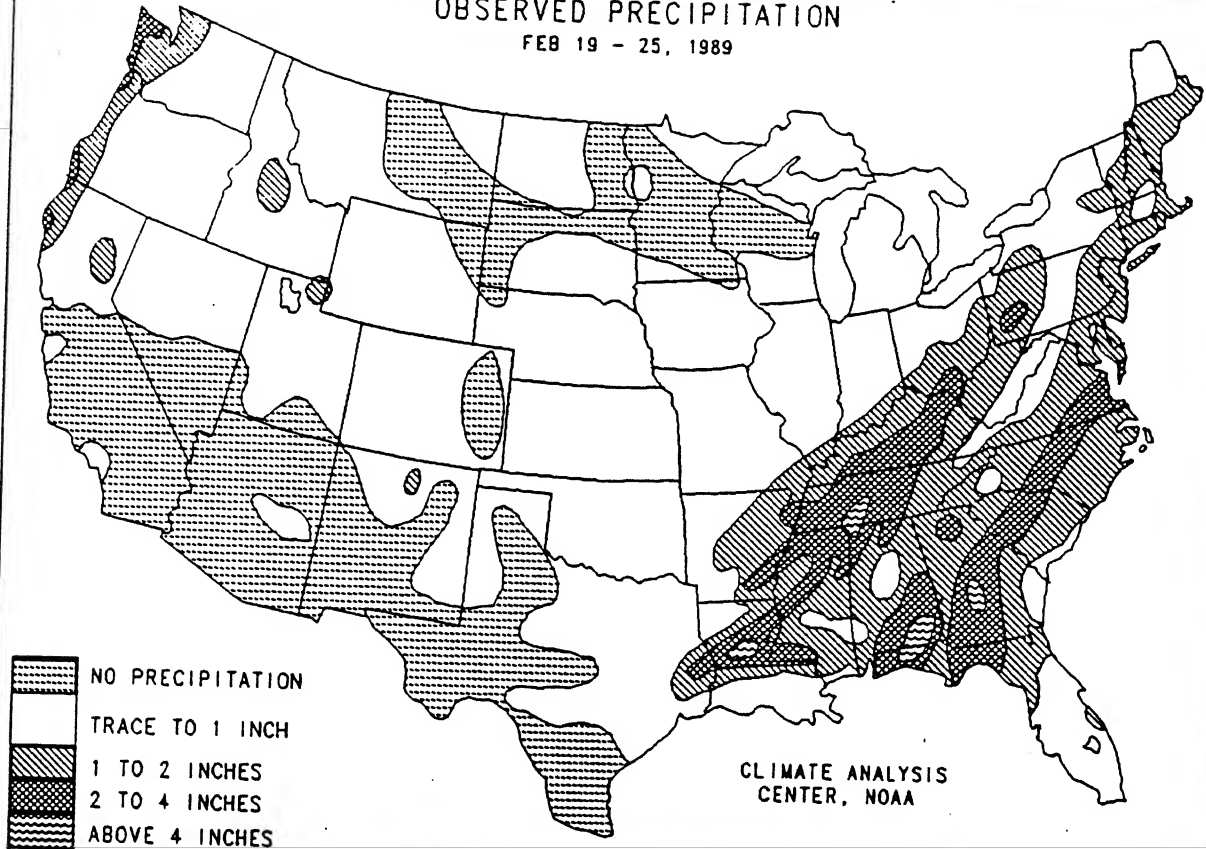
two inches or more were frequent across the Southeast from Louisiana to Kentucky and Virginia and along the East Coast from eastern Virginia to eastern Massachusetts (see Table 1). A few stations in the Pacific Northwest and Hawaii also reported heavy precipitation. Moderate precipitation fell across most of the remaining eastern United States and west of the Cascades. Extensive areas of the United States had little or no precipitation (i.e., less than one-half inch). These areas included most of California and the western and central United States from the Cascades to the Ohio River in the northern half and from California to the Mississippi River Valley in the southern half of the country.

Bitterly cold air spread across the central and eastern United States from Montana and the Dakotas and from Texas to the Middle Atlantic States. The greatest negative temperature departures (-9°F to -11°F) occurred in eastern Iowa and west central Illinois, Arkansas, and southern Georgia and parts of northern Florida (see Table 2). Washington also reported below normal temperatures. The unusually cold conditions in the remainder of the West were replaced by very mild temperatures averaging as much as 10°F above normal (see Table 3). New England also experienced above normal temperatures. Alaska continued to experience relatively mild weather as temperatures were up to 18°F above normal.

TABLE 1. Selected stations with two or more inches of precipitation for the week.

<u>Station</u>	<u>Amount(In)</u>	<u>Station</u>	<u>Amount(In)</u>
Kokee, Kauai, HI	15.52	Raleigh-Durham, NC	2.22
Lihue, Kauai, HI	7.21	Millville, NJ	2.21
England AFB, LA	6.00	Hopkinsville/Campbell, TN	2.21
Cairns AFB, AL	4.63	Dover AFB, DE	2.20
Macon, GA	3.80	Falmouth/Otis AFB, MA	2.15
Valparaiso/Eglin AFB, FL	3.38	Atlantic City, NJ	2.13
Quillayute, WA	3.03	Pensacola NAS, FL	2.13
Muscle Shoals, AL	2.80	Memphis NAS, TN	2.13
Tallahassee, FL	2.76	Moody AFB, GA	2.09
Astoria, OR	2.54	Norfolk, VA	2.07
Dothan, AL	2.49	Willow Grove NAS, PA	2.06
Islip, NY	2.35	Sumter/Shaw AFB, SC	2.05
Columbia, SC	2.29	Crossville, TN	2.03
South Weymouth, MA	2.24	Atlanta, GA	2.00

OBSERVED PRECIPITATION FEB 19 - 25, 1989



DEPARTURE OF AVERAGE TEMPERATURE FROM NORMAL (°F) FEB 19 - 25, 1989

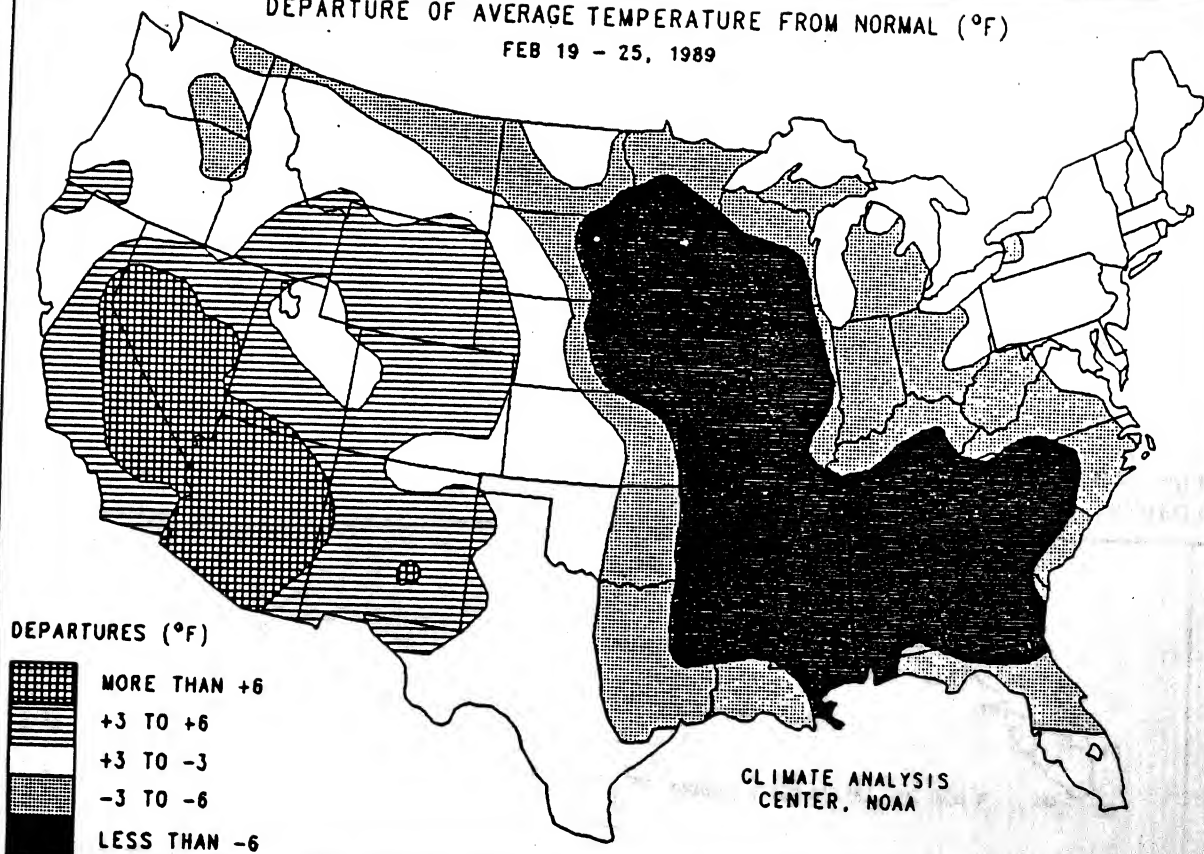
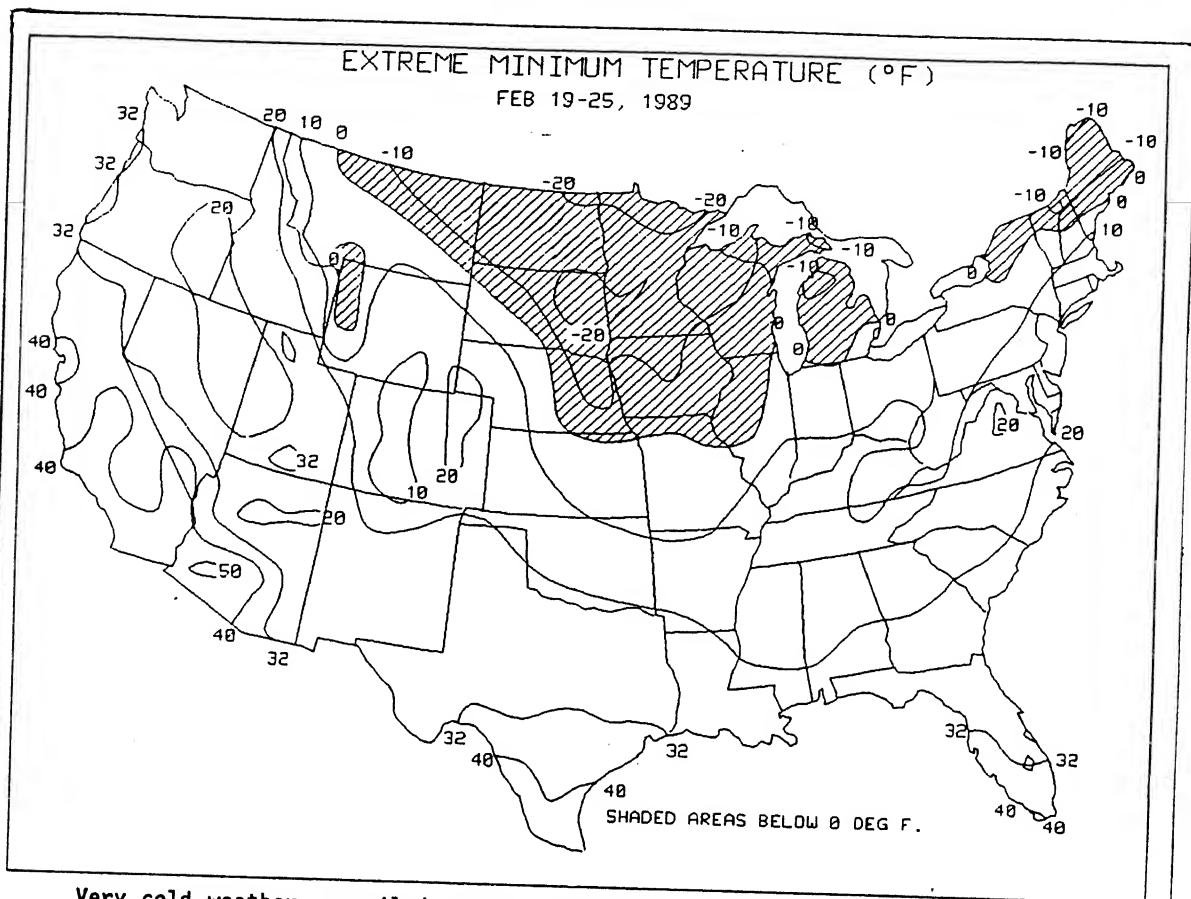


TABLE 2. Selected stations with temperatures averaging 8.0°F or more BELOW normal for the week.

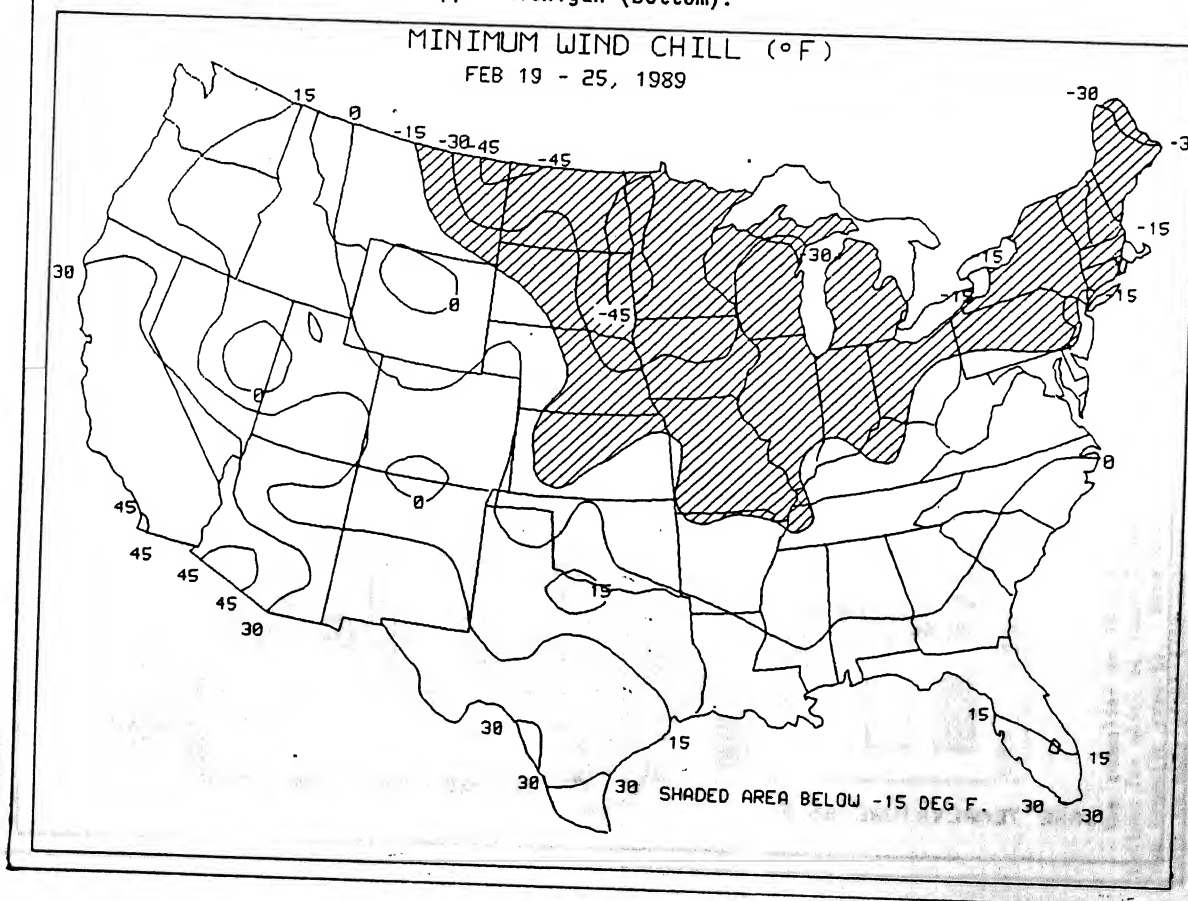
Station	TDepNm1	AvgT(°F)	Station	TDepNm1	AvgT(°F)
Quincy, IL	-11.0	20.2	Crossville, TN	-8.8	30.9
Warner-Robins AFB, GA	-11.0	41.5	Cedar Rapids, IA	-8.7	18.1
Ottumwa, IA	-9.7	18.5	Keesler AFB, MS	-8.6	47.3
Blytheville AFB, AR	-9.7	35.4	Springfield, IL	-8.5	23.0
Sioux Falls, SD	-9.6	12.2	Birmingham, AL	-8.5	39.3
Waterloo, IA	-9.6	13.4	Harrison, AR	-8.4	33.0
Peoria, IL	-9.5	19.8	Athens, GA	-8.4	38.2
Little Rock, AR	-9.5	36.3	Mobile, AL	-8.4	46.5
Gainesville, FL	-9.5	50.8	Anniston, AL	-8.3	39.3
Huron, SD	-9.4	11.6	Montgomery, AL	-8.3	43.0
Lincoln, NE	-9.4	19.5	Rochester, MN	-8.2	11.1
Jonesboro, AR	-9.3	34.9	Minneapolis, MN	-8.2	11.9
North Omaha, NE	-9.2	20.6	La Crosse, WI	-8.2	14.3
Macon, GA	-9.1	41.4	Aberdeen, SD	-8.0	10.3
Sumter/Shaw AFB, SC	-9.0	41.1	Moline, IL	-8.0	19.6
Des Moines, IA	-8.9	18.2	Atlanta, GA	-8.0	38.4
Burlington, IA	-8.9	20.5			

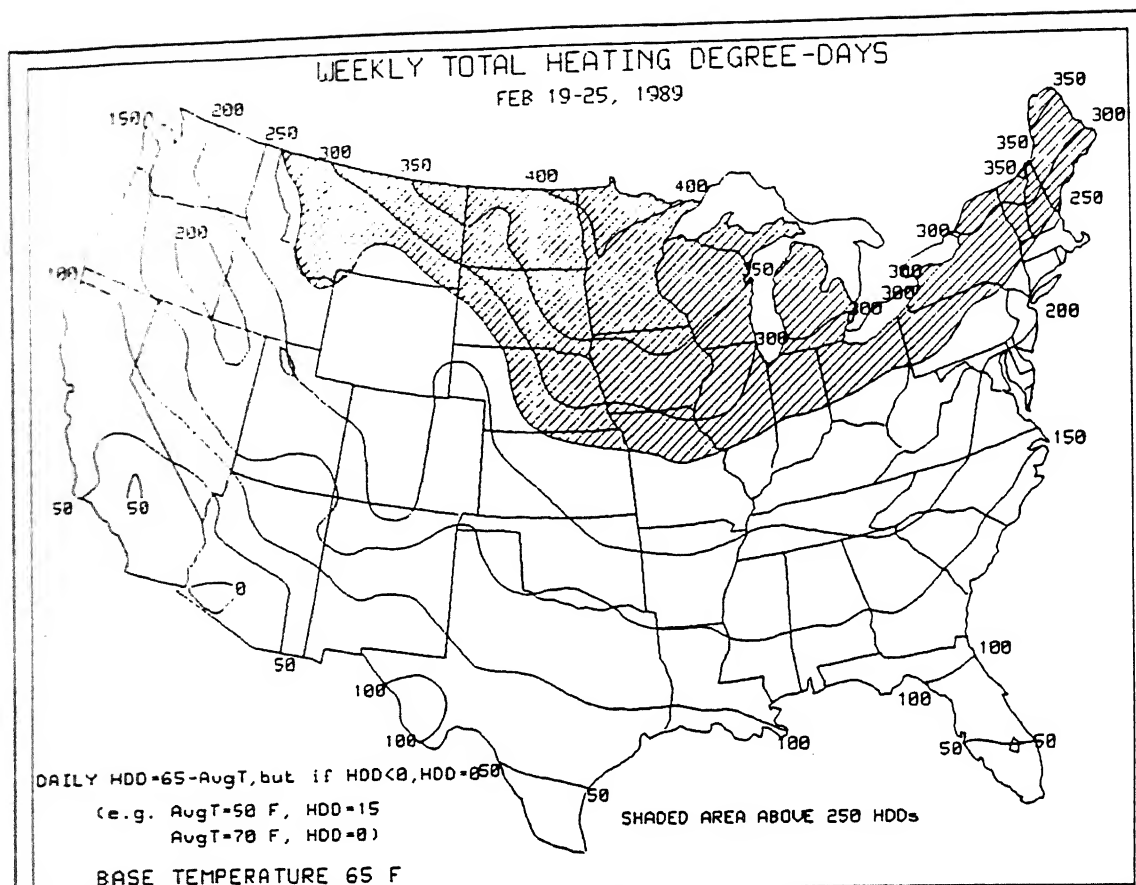
TABLE 3. Selected stations with temperatures averaging 8.0°F or more ABOVE normal for the week.

Station	TDepNm1	AvgT(°F)	Station	TDepNm1	AvgT(°F)
Barrow, AK	+17.9	-2.2	McGrath, AK	+9.7	10.2
Bethel, AK	+17.6	24.3	Reno, NV	+9.3	48.0
Kotzebue, AK	+16.5	11.9	Prescott, AZ	+9.1	49.2
Nome, AK	+13.2	16.5	St. Paul Island, AK	+8.9	30.6
King Salmon, AK	+12.9	28.3	Las Vegas, NV	+8.6	60.1
Unalakleet, AK	+11.7	15.4	Luke AFB, AZ	+8.4	64.7
Phoenix, AZ	+10.2	67.4	Ely, NV	+8.4	38.6
George AFB, CA	+9.9	56.7	Bettles, AK	+8.4	4.9
Fairbanks, AK	+9.9	8.8	Tucson, AZ	+8.0	62.7

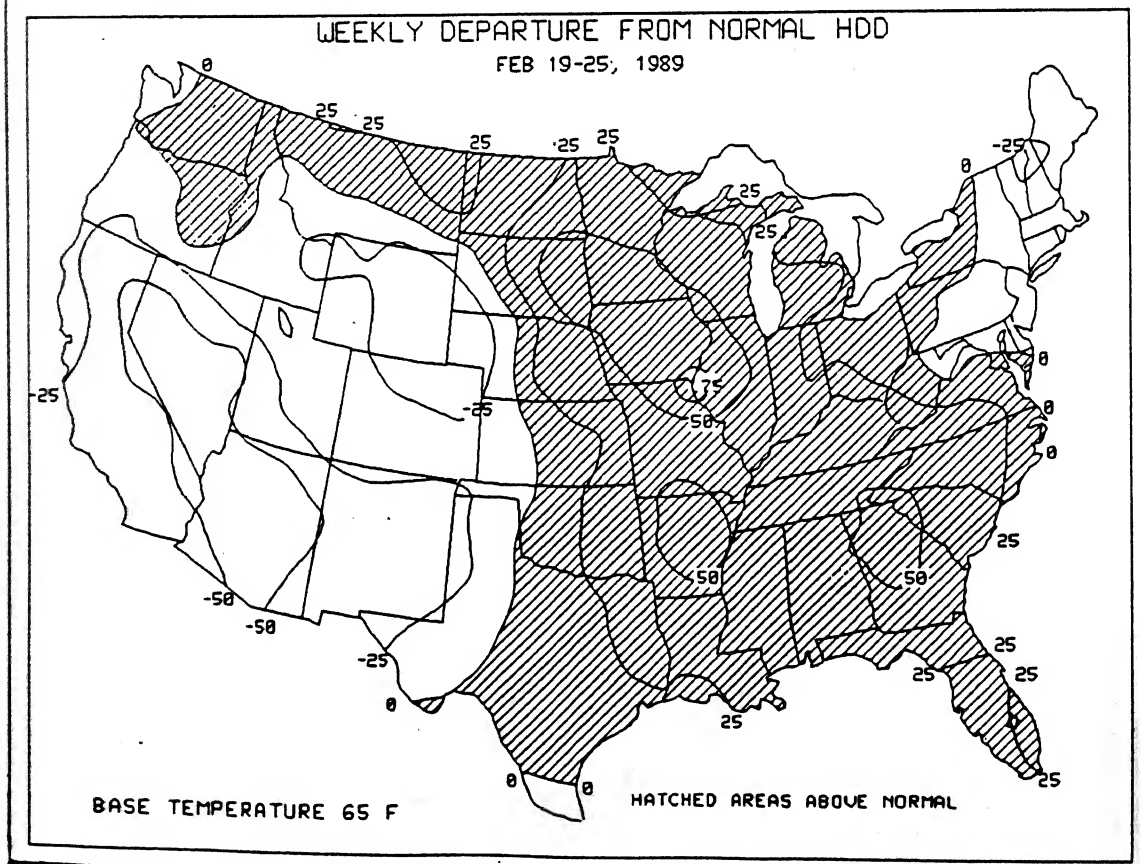


Very cold weather prevailed across the eastern United States as lows dipped below 32°F as far south as central Texas and central Florida (top). Dangerous wind chills (less than -30°F) prevailed across the north central states from northeastern Montana to Upper Michigan (bottom).



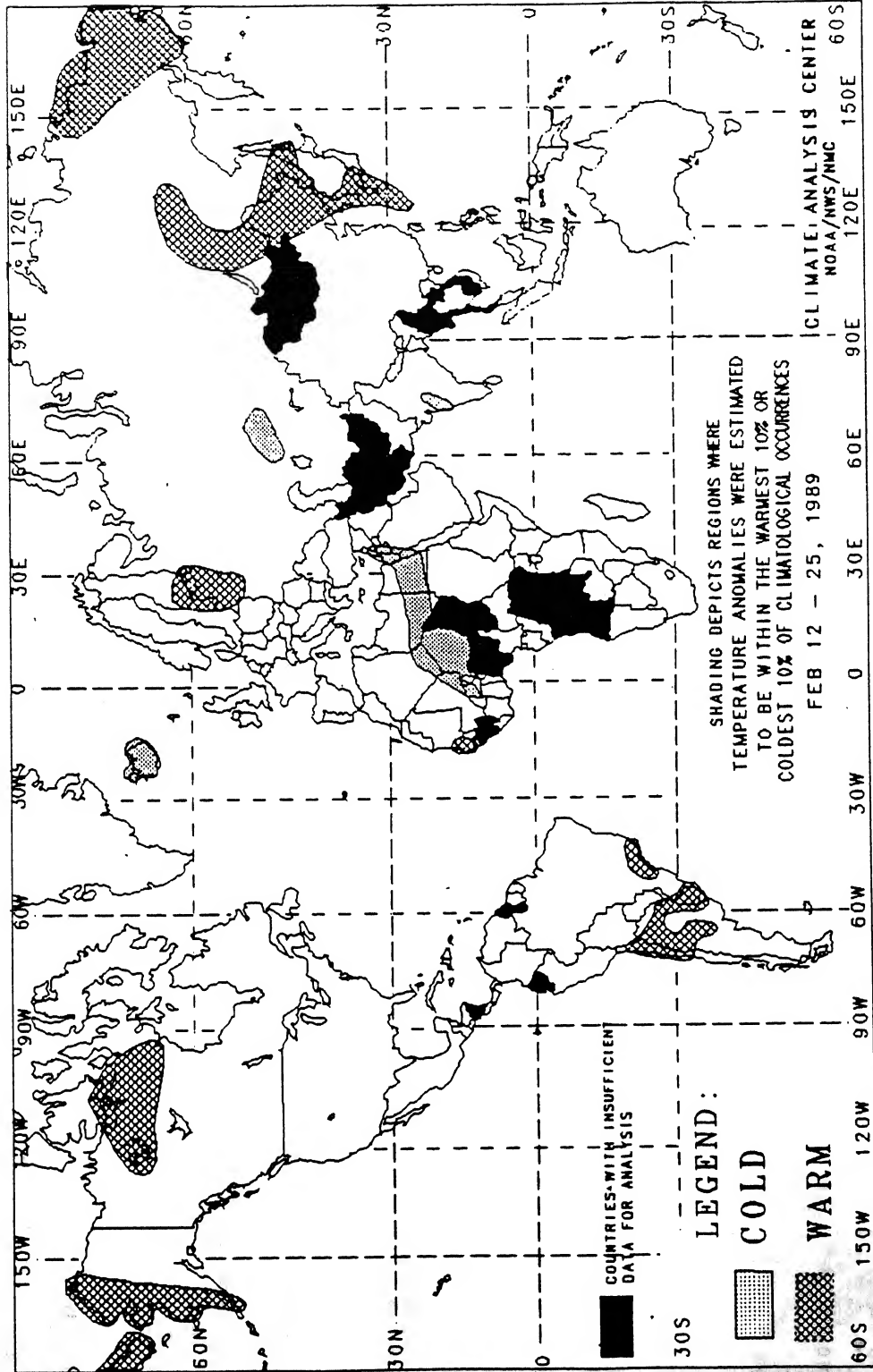


Frigid weather kept weekly heating usage above 350 HDDs across the north central states (top). Cold air invaded the East and required excess heating, while mild conditions in the West sharply lowered weekly heating demand.



GLOBAL TEMPERATURE ANOMALIES

2 WEEKS



The anomalies on this chart are based on approximately 2500 observing stations for which at least 13 days of temperature observations were received from synoptic reports. Many stations do not operate on a twenty-four hour basis so many night time observations are not taken. As a result of these missing observations the estimated minimum temperature may have a warm bias. This in turn may have resulted in an overestimation of the extent of some warm anomalies.

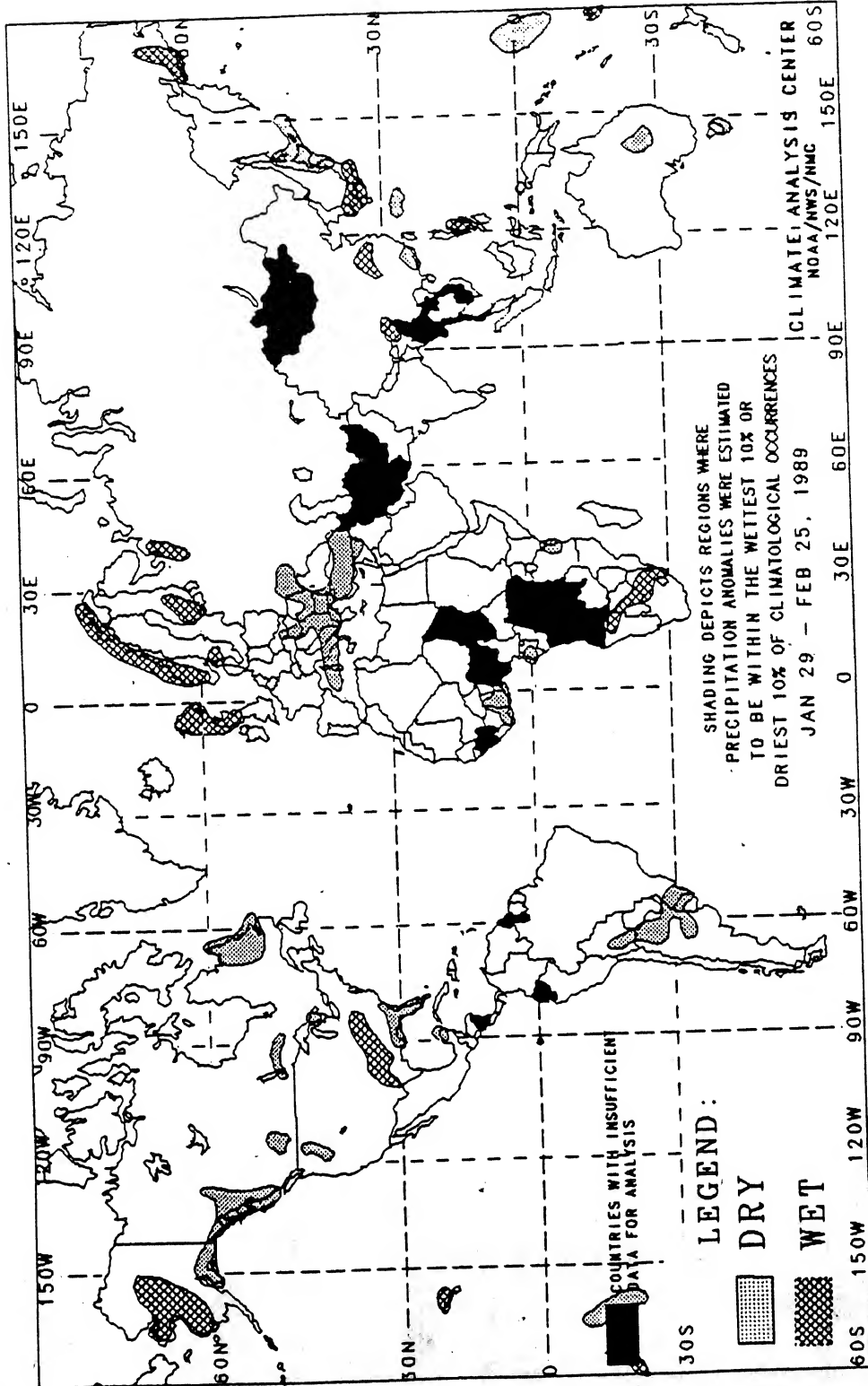
Temperature anomalies are not depicted unless the magnitude of temperature departures from normal exceeds 1.5°C.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data is insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of two week temperature anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

GLOBAL PRECIPITATION ANOMALIES

4 WEEKS



The anomalies on this chart are based on approximately 2500 observing stations for which at least 27 days of precipitation observations (including zero amounts) were received or estimated from synoptic reports. As a result of both missing observations and the use of estimates from synoptic reports (which are conservative), a dry bias in the total precipitation amount may exist for some stations used in this analysis. This in turn may have resulted in an overestimation of the extent of some dry anomalies.

In climatologically arid regions where normal precipitation for the four week period is less than 20 mm, dry anomalies are not depicted. Additionally, wet anomalies for such arid regions are not depicted unless the initial four week precipitation exceeds 50 mm.

In some regions, insufficient data exist to determine the magnitude of anomalies. These regions are located in parts of tropical Africa, southwestern Asia, interior equatorial South America, and along the Arctic Coast. Either current data are too sparse or incomplete for analysis, or historical data is insufficient for determining percentiles, or both. No attempt has been made to estimate the magnitude of anomalies in such regions.

The chart shows general areas of four week precipitation anomalies. Caution must be used in relating it to local conditions, especially in mountainous regions.

